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May 10, 2006

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME:	The Reserve at Barton Hill East & West (submitted as The Reserve at Bonner's Hill West)
PROJECT MUNICIPALITY:	Charlton
PROJECT WATERSHED:	French River/Quinebaug
EOEA NUMBER:	13766
PROJECT PROPONENT:	Charlton Freeman, LLC
DATE NOTICED IN MONITOR:	April 10, 2006

Pursuant to the Massachusetts Environmental Policy Act (G.L. c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **requires** the preparation of an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project proposes the construction of single-family residences on 85 lots in a flexible development scheme on approximately 63 acres of a 165-acre site off Freeman Road in Charlton, MA. The project was submitted under a different name, "The Reserve at Bonner's Hill West", but has now been changed to The Reserve at Barton Hill West and East. The subdivision described in the ENF is proposed to be located on The Reserve at Barton Hill West site. The proponent acknowledges in the ENF that a second residential subdivision on a site across Freeman Road, known as The Reserve at Barton Hill East, is proposed and that preliminary plans have been submitted to the Charlton Planning Board. That project will consist of a 46-lot flexible residential subdivision on approximately 97 acres. Information presented in the ENF only disclosed potential

environmental impacts from the Barton Hill West site. The EIR required for the project should address the cumulative impacts from both developments.

Based on information presented in the ENF, the Reserve at Barton Hill West will require approximately 11,786 linear feet of roadways, will result in the alteration of approximately 63 acres of land and the creation of approximately 12 acres of new impervious surface. To access upland areas on the project site, the development will result in impacts to approximately 14,555 square feet (sf) of Bordering Vegetated Wetlands (BVW). The Reserve at Barton Hill East project will result in the alteration of approximately 4,845 sf of BVW. Of the total 165 acres on the western parcel, approximately 52 acres will remain as open space. On the eastern parcel, approximately 31 acres of open space will be preserved.

Stormwater management facilities designed to meet or exceed the Department of Environmental Policy's (DEP) Stormwater Management Guidelines will be installed on both parcels. Water and wastewater will be provided by individual private wells and septic systems on each proposed lot.

Jurisdiction and Project Review

The project is undergoing environmental review and is subject to the preparation of a mandatory EIR pursuant to Sections 11.03(1)(a)(1) and 11.03(1)(a)(2) of the MEPA regulations because it will result in the alteration of more than 50 acres of land and result in the creation of greater than 10 acres of new impervious surface. The project is also subject to review pursuant to Section 11.03(3)(b)(1)(d) of the MEPA regulations because it will result in the alteration of more than 5,000 sf of BVW.

The project requires a National Pollutant Discharge and Elimination System (NPDES) Construction General Permit from the U.S. Environmental Protection Agency (EPA); a Category 2 Programmatic General Permit (PGP) from the U.S. Army Corps of Engineers (ACOE); a 401 Water Quality Certificate from DEP; an Order of Conditions from the Charlton Conservation Commission; review from the Charlton Planning Board; and Title V approval from the Charlton Board of Health. The project also requires review from the Massachusetts Historical Commission. Because the proponent is not seeking financial assistance from the Commonwealth for the project MEPA jurisdiction is limited to the subject matter of required or potentially required state permits. In this case, MEPA jurisdiction extends to issues of land alteration, drainage, wetlands and archaeological resources.

SCOPE

General

The Draft EIR (DEIR) should follow the general guidance for outline and content contained in Section 11.07 of the MEPA regulations, as modified by this Scope. The DEIR should include a copy of this Certificate and a copy of each comment received. The proponent should circulate the DEIR to those parties that commented on the ENF, to the Town of Charlton,

to any state agencies from which the proponent will seek permits or approvals, and to any parties specified in Section 11.16 of the MEPA regulations. A copy of the DEIR should be made available for public review at the Charlton Public Library.

Project Description and Permitting

The DEIR should include a thorough description of both proposed development projects - The Reserve at Barton Hill East and West - including a detailed description of construction methods and phasing. The DEIR should include maps and plans at a reasonable scale that clearly locate and delineate project elements, wetlands resource areas, site access routes and adjacent land uses. In response to comments from the Charlton Planning Board, the proponent should submit the definitive subdivision design plan for both proposed development sites with the DEIR. The DEIR should clarify the total amount of land alteration resulting from all project activities, including alteration of previously disturbed areas and wetlands areas, and areas proposed for lawns, roads, site drives and the stormwater management system.

The DEIR should include a brief description of each state permit or agency action required or potentially required, and should demonstrate that the project will meet applicable performance standards. In accordance with Executive Order No. 385, "Planning for Growth" and Section 11.03 (3)(a) of the MEPA regulations, the DEIR should discuss the consistency of the project with the local and regional growth management and open space plans. The proponent should also provide an update on the local permitting process for the project and an update on any changes in the project since the filing of the ENF.

The ENF indicates that approximately 52 acres of the Barton Hill West site will remain as open space and that approximately 31 acres of the Barton Hill East site will remain as open space. The proponent should provide more detail on whether proposed open space will be permanently protected under a Conservation Restriction (CR). Site plans should differentiate between areas proposed for permanent protection under a CR and any open space areas that will not be permanently protected.

Alternatives

The DEIR requires a comprehensive alternatives analysis in order to ascertain which site layout minimizes overall impacts to land, open space and wetlands. The alternatives analysis should clearly demonstrate consistency with the objectives of MEPA review, one of which is to document the means by which the proponent plans to avoid, minimize or mitigate Damage to the Environment to the maximum extent feasible. The DEIR should fully explain any trade-offs inherent in the alternatives analysis, such as increased impacts on some resources to avoid impacts to other resources.

The alternatives analysis should include a no-build alternative on both parcels that will establish baseline conditions and serve as a basis to evaluate potential impacts of the proposed project and other alternatives, and to develop appropriate mitigation. According to the ENF, the proponent previously considered a conventional development scheme on the two sites that would have resulted in greater impacts to land and wetlands. In addition to the preferred "flexible

development" alternative, the DEIR should propose a reduced-build scenario that would minimize impervious area, reduce land alteration and reduce impacts to wetlands.

The DEIR should evaluate any additional alternatives required by the state permitting processes. An alternatives analysis is required as part of the 401 Water Quality Certificate to be issued by DEP. Proposed wetlands crossings at the two sites will result in impacts to more than 19,000 sf of BVW. In response to comments from DEP, the DEIR should identify adjacent parcels and their owners, and discuss whether access from these adjacent parcels would reduce the wetland area impacts associated with the proposed development. The alternatives analysis should also consider whether changes to the proposed roadway layout could reduce the number of wetland crossings required. The alternatives analysis should evaluate costs associated with the various alternatives considered.

Land Alteration/Drainage

As described in the ENF, the development on the Barton Hill West site will result in the creation of approximately 12 acres of new impervious surface. The DEIR should also estimate the amount of impervious surface that will be created on the Barton Hill East site. Given the large amount of impervious surface that will be created on site, and the presence of extensive wetland resource areas, it is important that the project's stormwater management system provides the highest practicable level of treatment so as not to adversely impact groundwater in the area.

The ENF states that the stormwater management system for the proposed development has been designed in accordance with the DEP's Stormwater Management Standards. In addition, a Stormwater Pollution Prevention Plan will be implemented throughout project construction. The DEIR should present drainage calculations and detailed plans for the management of stormwater from the proposed project. It should include a detailed description of the proposed drainage system design, including a discussion of the alternatives considered along with their impacts. The DEIR should identify the quantity and quality of flows for the 10, 25 and 100-year storm events.

The DEIR should address the performance standards of DEP's Stormwater Management Policy and the consistency of the project with the provisions of the NPDES General Permit from the EPA for stormwater discharges from construction sites. The DEIR should include discussion of best management practices employed to meet the DEP and NPDES requirements, and should include a draft of the Pollution Prevention Plan. In addition, a maintenance program for the drainage system will be needed to ensure its effectiveness. This maintenance program should outline the actual maintenance operations, sweeping schedule, responsible parties, and back-up systems.

Proposed activities, including construction mitigation, erosion and sedimentation control, phased construction, and drainage discharges or overland flow into wetland areas, should be evaluated. The locations of any proposed detention basins and their distances from wetland resource areas, and the expected water quality of the effluent from these basins should be identified. This analysis should address current and expected post-construction water quality

(including winter de-icing and sanding analyses) of the predicted final receiving water bodies. The drainage analysis should ensure that on- and off-site wetlands are not impacted by changes in stormwater runoff patterns.

I encourage the proponent to consider LID techniques in site design and storm water management plans. LID techniques incorporate stormwater best management practices (BMPs) and can reduce impacts to land and water resources by conserving natural systems and hydrologic functions. The primary tools of LID are landscaping features and naturally vegetated areas, which encourage detention, infiltration and filtration of stormwater on-site. Other tools include water conservation and use of pervious surfaces. Clustering of buildings is an example of how LID can preserve open space and minimize land disturbance. LID can also protect natural resources by incorporating wetlands, stream buffers, and mature forests as project design features. For more information on LID, visit http://www.mass.gov/envir/lid/. Other LID resources include the national LID manual (Low Impact Development Design Strategies: An Integrated Design Approach), which can be found on the EPA website at: http://www.epa.gov/owow/nps/lid/. The DEIR should include a discussion of any LID measures that the proponent could incorporate into project design.

Wetlands

Resource areas on the project site include Bordering Vegetated Wetland (BVW), Inland Bank, and federally jurisdictional Isolated Vegetated Wetlands. The proponent has filed an Abbreviated Notice of Resource Area Delineation (ANRAD) with the Charlton Conservation Commission to confirm the wetland boundaries. As described in the ENF, the Reserve at Barton Hill West calls for six limited project wetlands crossings and one open-bottom arch culvert (OBAC) crossing. The proposed development on the Barton Hill West site is anticipated to result in impacts to approximately 14,555 sf of BVW. Approximately 4,845 sf of BVW will be impacted on the Barton Hill East site due to two limited project wetlands crossings.

Following the Charlton Conservation Commission's ruling on the ANRAD, the DEIR should include plans that clearly delineate all applicable resource area boundaries on the project site. The DEIR should quantify the project's estimated impact on each resource area. It should describe the nature of all likely impacts that cannot be avoided, including crossings, grading, overstory clearing and construction-related disturbances and whether they are temporary or permanent in nature. The proponent should also explain how the project would comply with the performance standards in the wetlands regulations and demonstrate that the alteration of resource areas has been avoided and minimized.

The project will require a 401 Water Quality Certificate for impacts to BVW and isolated vegetated wetland, pursuant to 314 CMR 9.04(1). The proponent should note comments from DEP regarding the alternatives analysis that will be required as part of the 401 Water Quality Certificate review. Details of the wetland crossings should be provided and any stream channels at these crossings should be identified. The wetland areas should be spanned where feasible using open bottom arched culverts.

The proponent has indicated that the project will provide wetlands replication at a ratio of 2:1. A detailed wetlands replication plan should be provided in the DEIR which, at a minimum, should include: replication location(s); elevations; typical cross sections; test pits or soil boring logs; groundwater elevations; the hydrology of areas to be altered and replicated; list of wetlands plant species of areas to be altered and the proposed wetland replication species; planned construction sequence; and a discussion of the required performance standards and long-term monitoring.

Sustainable Design

The proponent should evaluate sustainable design alternatives that can serve to avoid or minimize potential environmental impacts. Such alternatives may also reduce project development and long-term operational costs. The DEIR should discuss sustainable design alternatives evaluated by the proponent and describe measures proposed to avoid and minimize environmental impacts.

I encourage the proponent to consider high-performance/green building and other sustainable design measures to avoid and minimize environmental impacts. Such measures may include:

- Leadership in Energy and Environmental Design (LEED) certification;
- water conservation and reuse of wastewater and stormwater;
- use of renewable energy;
- ecological landscaping;
- optimization of natural day lighting, passive solar gain, and natural cooling;
- an annual audit program for energy and water use, and waste generation;
- energy-efficient Heating, Ventilation and Air Conditioning (HVAC), lighting systems, and appliances, and use of solar preheating of makeup air;
- use of building supplies and materials that are non-toxic, made from recycled materials, and made with low embodied energy;
- incorporation of an easily accessible and user-friendly recycling system infrastructure into building design; and
- implementation of a solid waste minimization and recycling plan.

Historic/Archaeological Resources

The Massachusetts Historical Commission (MHC) has stated that a review of the Inventory of Historic and Archaeological Assets of the Commonwealth indicates that there are no recorded historical or archaeological resources within the boundary of the project area. MHC does note however that portions of the project area are considered to be archaeologically sensitive and likely to contain archaeological sites associated with ancient and historical period occupation of the Charlton area. MHC has requested that an intensive (locational) archaeological survey be conducted for the project to locate, identify and evaluate any significant historic or archaeological resources that may be affected by the proposed project. The survey will be used to help identify project planning alternatives to avoid, minimize, or mitigate any adverse effects to significant cultural resources through planning and design considerations.

The proponent is required to submit a field investigation permit application (950 CMR 70) to the MHC for review prior to the archaeological survey. The DEIR should include a proposed schedule for the field investigation, noting the time that will be required to respond to or avoid any adverse effects to any significant cultural resources in the project area. If it is determined by MHC that no significant historical or archaeological resources are located in the project area, documentation of this determination should be included in the DEIR. The DEIR should also provide a discussion of the proponent's responsibilities under Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800).

Construction Period Impacts

The DEIR should include a discussion of construction phasing, evaluate potential impacts associated with construction activities, and propose feasible measures to avoid or eliminate these impacts. The proponent must comply with DEP's Solid Waste and Air Quality Control regulations. The proponent should implement measures to alleviate dust, noise and odor nuisance conditions which may occur during the construction activities.

Mitigation

The DEIR should contain a separate chapter on mitigation measures. It should include a Draft Section 61 Finding for all state permits that includes a clear commitment to mitigation, an estimate of the individual costs of the proposed mitigation, and the identification of the parties responsible for implementing the mitigation. The DEIR should provide a schedule for the implementation of the mitigation, based on the construction phases of the project.

Comments

The DEIR should respond to the comments received from state agencies, local officials and public citizens. The DEIR should present additional narrative and/or technical analysis as necessary to respond to the concerns raised.

May 10, 2006
Date

Stephen R. Pritchard

Comments received:

4/26/2006	Town of Charlton, Planning Board
4/28/2006	Massachusetts Historical Commission
5/4/2006	Department of Environmental Protection, Central Regional Office

SRP/BA/ba